

EXTRACTION OIL & GAS

WELD COUNTY

SEC 17-T7N-R67W

WALT EAST 16E-20-05N

OWB

Plan: PROPOSAL 1

Standard Planning Report

20 August, 2021



Project: WELD COUNTY
Site: SEC 17-T7N-R67W
Well: WALT EAST 16E-20-05N
Wellbore: OWB
Design: PROPOSAL 1



Azimuths to True North
Magnetic North: 8.22°

Magnetic Field
Strength: 52337.0nT
Dip Angle: 66.89°
Date: 8/15/2018
Model: IGRF2020

WELL DETAILS: WALT EAST 16E-20-05N

| +N/-S | +E/-W | Northing | Easting | 5107.00 | Latitude | Longitude | Slot |
|-------|-------|------------|------------|---------|-------------|--------------|------|
| 0.00 | 0.00 | 1453002.00 | 3164157.28 | | 40.575388°N | 104.909055°W | |

SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSec | Target |
|-----|----------|-------|--------|---------|----------|----------|-------|--------|----------|---------------------------|
| 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2 | 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3 | 1036.52 | 14.73 | 171.46 | 1028.43 | -93.11 | 13.99 | 2.00 | 171.46 | 28.44 | |
| 4 | 6584.28 | 14.73 | 171.46 | 6393.85 | -1488.09 | 223.56 | 0.00 | 0.00 | 454.50 | |
| 5 | 7462.17 | 90.00 | 90.18 | 6927.00 | -1628.46 | 795.64 | 10.00 | -81.56 | 1041.53 | WALT EAST 16E-20-05N-LP |
| 6 | 17098.56 | 90.00 | 90.18 | 6927.00 | -1659.05 | 10431.99 | 0.00 | 0.00 | 10563.09 | WALT EAST 16E-20-05N-PBHL |

ANNOTATIONS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | VSec | Departure | Annotation |
|----------|-------|--------|---------|----------|----------|----------|-----------|----------------------------------|
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | Start Build 2.00 |
| 1036.52 | 14.73 | 171.46 | 1028.43 | -93.11 | 13.99 | 28.44 | 94.16 | Start 5547.76 hold at 1036.52 MD |
| 6584.28 | 14.73 | 171.46 | 6393.85 | -1488.09 | 223.56 | 454.50 | 1504.79 | Start DLS 10.00 TFO -81.56 |
| 7462.17 | 90.00 | 90.18 | 6927.00 | -1628.46 | 795.64 | 1041.53 | 2114.23 | Start 9636.39 hold at 7462.17 MD |
| 17098.56 | 90.00 | 90.18 | 6927.00 | -1659.05 | 10431.99 | 10563.09 | 11750.63 | TD at 17098.56 |

DESIGN TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Shape |
|---------------------------|---------|----------|----------|------------|------------|-------------|--------------|-------|
| WALT EAST 16E-20-05N-LP | 6927.00 | -1628.46 | 795.64 | 1451378.88 | 3164963.76 | 40.570918°N | 104.906191°W | Point |
| - plan hits target center | | | | | | | | |
| WALT EAST 16E-20-05N-PBHL | 6927.00 | -1659.05 | 10431.99 | 1451412.51 | 3174600.10 | 40.570828°N | 104.871504°W | Point |
| - plan hits target center | | | | | | | | |

FORMATION TOP DETAILS

| TVDPath | MDPath | Formation |
|---------|---------|----------------------------------|
| 792.00 | 794.45 | Fox Hills Base: |
| 3452.00 | 3542.45 | Parkman: |
| 3972.00 | 4080.12 | Sussex: |
| 4552.00 | 4679.83 | Shannon: |
| 6895.00 | 7266.57 | Sharon Springs (Confining Zone): |
| 6917.00 | 7353.19 | Niobrara: |

PROJECT DETAILS: WELD COUNTY

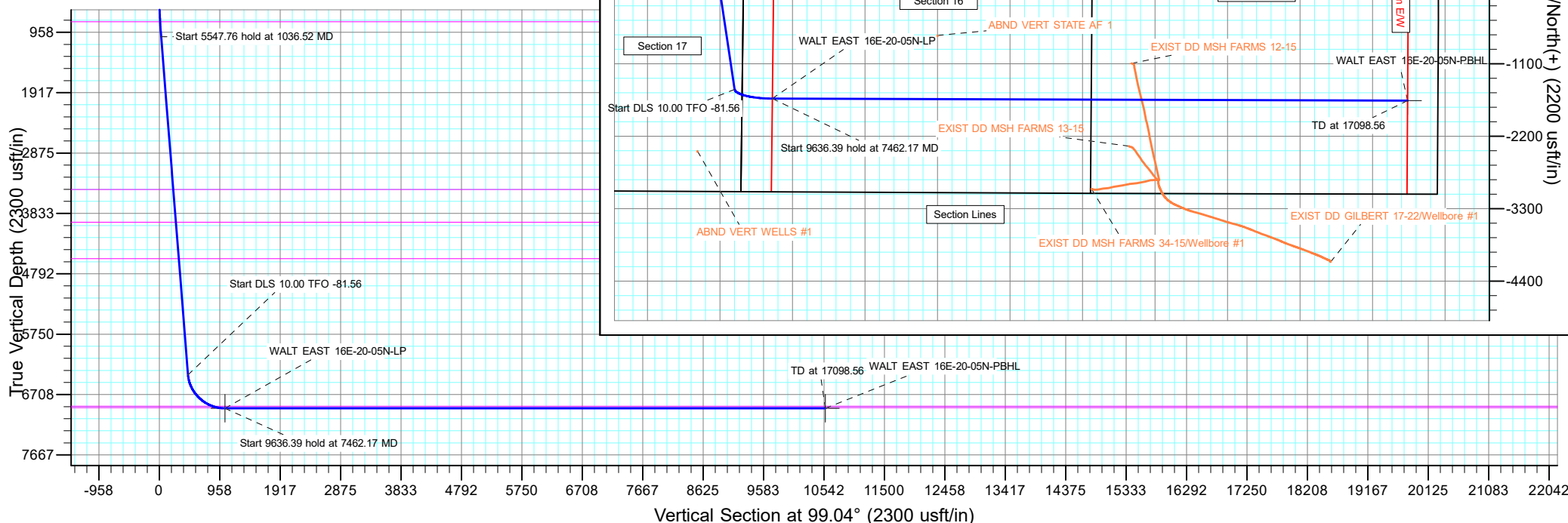
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

System Datum: Mean Sea Level

SHL:
2241' FNL, 354' FEL
Sec 17-T7N-R67W

LP:
1415' FSL, 460' FWL
Sec 16-T7N-R67W

BHL:
1422' FSL, 460' FEL
Sec 15-T7N-R67W



Planning Report

| | | | |
|------------------|----------------------------|-------------------------------------|---------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well WALT EAST 16E-20-05N |
| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB 29' @ 5136.00usft |
| Project: | WELD COUNTY | MD Reference: | KB 29' @ 5136.00usft |
| Site: | SEC 17-T7N-R67W | North Reference: | True |
| Well: | WALT EAST 16E-20-05N | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OWB | | |
| Design: | PROPOSAL 1 | | |

| | | | |
|--------------------|---------------------------|----------------------|----------------|
| Project | WELD COUNTY | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Northern Zone | | |

| | | | | | | |
|-----------------------|----------|-----------------|--------------|--------------|------------|--------------|
| Site | | SEC 17-T7N-R67W | | | | |
| Site Position: | | Northing: | 1,455,244.22 | usft | Latitude: | 40.581536°N |
| From: | Lat/Long | Easting: | 3,164,511.50 | usft | Longitude: | 104.907726°W |
| Position Uncertainty: | | 0.00 | usft | Slot Radius: | 13.200 | in |

| Well | | WALT EAST 16E-20-05N | | | | |
|----------------------|-------|----------------------|---------------------|-------------------|---------------|---------------|
| Well Position | +N/-S | 0.00 usft | Northing: | 1,453,002.00 usft | Latitude: | 40.575388°N |
| | +E/-W | 0.00 usft | Easting: | 3,164,157.28 usft | Longitude: | 104.909055°W |
| Position Uncertainty | | 0.00 usft | Wellhead Elevation: | usft | Ground Level: | 5,107.00 usft |
| Grid Convergence: | | 0.38 ° | | | | |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | OWB | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2020 | 8/15/2018 | 8.22 | 66.89 | 52,337.00552360 |

| | | | | | |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|--|
| Design | PROPOSAL 1 | | | | |
| Audit Notes: | | | | | |
| Version: | Phase: | PROTOTYPE | Tie On Depth: | 0.00 | |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) | |
| | 0.00 | 0.00 | 0.00 | 99.04 | |

| | | | | | |
|---------------------------------|------------------------|----------------------------|---------------------|----------------|--|
| Plan Survey Tool Program | Date | 8/20/2021 | | | |
| Depth From (usft) | Depth To (usft) | Survey (Wellbore) | Tool Name | Remarks | |
| 1 | 0.00 | 17,098.56 PROPOSAL 1 (OWB) | MWD OWSG | | |
| | | | OWSG MWD - Standard | | |

| | | | | | | | | | | |
|------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|------------------------------|-----------------------------|----------------------------|----------------|--------------------|
| Plan Sections | | | | | | | | | | |
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,036.52 | 14.73 | 171.46 | 1,028.43 | -93.11 | 13.99 | 2.00 | 2.00 | 0.00 | 171.46 | |
| 6,584.28 | 14.73 | 171.46 | 6,393.85 | -1,488.09 | 223.56 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,462.17 | 90.00 | 90.18 | 6,927.00 | -1,628.46 | 795.64 | 10.00 | 8.57 | -9.26 | -81.56 | WALT EAST 16E-20-(|
| 17,098.56 | 90.00 | 90.18 | 6,927.00 | -1,659.05 | 10,431.99 | 0.00 | 0.00 | 0.00 | 0.00 | WALT EAST 16E-20-(|

Planning Report

| | | | |
|------------------|----------------------------|-------------------------------------|---------------------------|
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| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB 29' @ 5136.00usft |
| Project: | WELD COUNTY | MD Reference: | KB 29' @ 5136.00usft |
| Site: | SEC 17-T7N-R67W | North Reference: | True |
| Well: | WALT EAST 16E-20-05N | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OWB | | |
| Design: | PROPOSAL 1 | | |

| Planned Survey | | | | | | | | | |
|----------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Start Build 2.00 | | | | | | | | | |
| 400.00 | 2.00 | 171.46 | 399.98 | -1.73 | 0.26 | 0.53 | 2.00 | 2.00 | 0.00 |
| 500.00 | 4.00 | 171.46 | 499.84 | -6.90 | 1.04 | 2.11 | 2.00 | 2.00 | 0.00 |
| 600.00 | 6.00 | 171.46 | 599.45 | -15.52 | 2.33 | 4.74 | 2.00 | 2.00 | 0.00 |
| 700.00 | 8.00 | 171.46 | 698.70 | -27.57 | 4.14 | 8.42 | 2.00 | 2.00 | 0.00 |
| 794.45 | 9.89 | 171.46 | 792.00 | -42.09 | 6.32 | 12.86 | 2.00 | 2.00 | 0.00 |
| Fox Hills Base: | | | | | | | | | |
| 800.00 | 10.00 | 171.46 | 797.47 | -43.04 | 6.47 | 13.15 | 2.00 | 2.00 | 0.00 |
| 900.00 | 12.00 | 171.46 | 895.62 | -61.91 | 9.30 | 18.91 | 2.00 | 2.00 | 0.00 |
| 1,000.00 | 14.00 | 171.46 | 993.06 | -84.15 | 12.64 | 25.70 | 2.00 | 2.00 | 0.00 |
| 1,036.52 | 14.73 | 171.46 | 1,028.43 | -93.11 | 13.99 | 28.44 | 2.00 | 2.00 | 0.00 |
| Start 5547.76 hold at 1036.52 MD | | | | | | | | | |
| 1,100.00 | 14.73 | 171.46 | 1,089.83 | -109.07 | 16.39 | 33.31 | 0.00 | 0.00 | 0.00 |
| 1,200.00 | 14.73 | 171.46 | 1,186.54 | -134.22 | 20.16 | 40.99 | 0.00 | 0.00 | 0.00 |
| 1,300.00 | 14.73 | 171.46 | 1,283.25 | -159.36 | 23.94 | 48.67 | 0.00 | 0.00 | 0.00 |
| 1,400.00 | 14.73 | 171.46 | 1,379.97 | -184.51 | 27.72 | 56.35 | 0.00 | 0.00 | 0.00 |
| 1,500.00 | 14.73 | 171.46 | 1,476.68 | -209.65 | 31.50 | 64.03 | 0.00 | 0.00 | 0.00 |
| 1,600.00 | 14.73 | 171.46 | 1,573.39 | -234.80 | 35.27 | 71.71 | 0.00 | 0.00 | 0.00 |
| 1,700.00 | 14.73 | 171.46 | 1,670.11 | -259.94 | 39.05 | 79.39 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 14.73 | 171.46 | 1,766.82 | -285.09 | 42.83 | 87.07 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 14.73 | 171.46 | 1,863.53 | -310.23 | 46.61 | 94.75 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 14.73 | 171.46 | 1,960.25 | -335.38 | 50.38 | 102.43 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 14.73 | 171.46 | 2,056.96 | -360.52 | 54.16 | 110.11 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 14.73 | 171.46 | 2,153.67 | -385.67 | 57.94 | 117.79 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 14.73 | 171.46 | 2,250.39 | -410.81 | 61.72 | 125.47 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 14.73 | 171.46 | 2,347.10 | -435.96 | 65.49 | 133.15 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 14.73 | 171.46 | 2,443.81 | -461.10 | 69.27 | 140.83 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 14.73 | 171.46 | 2,540.53 | -486.25 | 73.05 | 148.51 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 14.73 | 171.46 | 2,637.24 | -511.39 | 76.83 | 156.19 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 14.73 | 171.46 | 2,733.95 | -536.54 | 80.60 | 163.87 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 14.73 | 171.46 | 2,830.67 | -561.68 | 84.38 | 171.55 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 14.73 | 171.46 | 2,927.38 | -586.83 | 88.16 | 179.23 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 14.73 | 171.46 | 3,024.09 | -611.97 | 91.94 | 186.91 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 14.73 | 171.46 | 3,120.81 | -637.12 | 95.71 | 194.59 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 14.73 | 171.46 | 3,217.52 | -662.26 | 99.49 | 202.27 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 14.73 | 171.46 | 3,314.23 | -687.41 | 103.27 | 209.95 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 14.73 | 171.46 | 3,410.95 | -712.55 | 107.05 | 217.63 | 0.00 | 0.00 | 0.00 |
| 3,542.45 | 14.73 | 171.46 | 3,452.00 | -723.23 | 108.65 | 220.89 | 0.00 | 0.00 | 0.00 |
| Parkman: | | | | | | | | | |
| 3,600.00 | 14.73 | 171.46 | 3,507.66 | -737.70 | 110.82 | 225.31 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 14.73 | 171.46 | 3,604.37 | -762.84 | 114.60 | 232.99 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 14.73 | 171.46 | 3,701.09 | -787.99 | 118.38 | 240.67 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 14.73 | 171.46 | 3,797.80 | -813.13 | 122.16 | 248.35 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 14.73 | 171.46 | 3,894.51 | -838.28 | 125.93 | 256.03 | 0.00 | 0.00 | 0.00 |
| 4,080.12 | 14.73 | 171.46 | 3,972.00 | -858.42 | 128.96 | 262.18 | 0.00 | 0.00 | 0.00 |
| Sussex: | | | | | | | | | |
| 4,100.00 | 14.73 | 171.46 | 3,991.23 | -863.42 | 129.71 | 263.71 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 14.73 | 171.46 | 4,087.94 | -888.57 | 133.49 | 271.39 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 14.73 | 171.46 | 4,184.65 | -913.71 | 137.27 | 279.07 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 14.73 | 171.46 | 4,281.37 | -938.86 | 141.04 | 286.75 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 14.73 | 171.46 | 4,378.08 | -964.00 | 144.82 | 294.43 | 0.00 | 0.00 | 0.00 |

Planning Report

| | | | |
|------------------|----------------------------|-------------------------------------|---------------------------|
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| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB 29' @ 5136.00usft |
| Project: | WELD COUNTY | MD Reference: | KB 29' @ 5136.00usft |
| Site: | SEC 17-T7N-R67W | North Reference: | True |
| Well: | WALT EAST 16E-20-05N | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OWB | | |
| Design: | PROPOSAL 1 | | |

| Planned Survey | | | | | | | | | |
|---|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 4,600.00 | 14.73 | 171.46 | 4,474.79 | -989.15 | 148.60 | 302.11 | 0.00 | 0.00 | 0.00 |
| 4,679.83 | 14.73 | 171.46 | 4,552.00 | -1,009.22 | 151.61 | 308.24 | 0.00 | 0.00 | 0.00 |
| Shannon: | | | | | | | | | |
| 4,700.00 | 14.73 | 171.46 | 4,571.51 | -1,014.29 | 152.38 | 309.79 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 14.73 | 171.46 | 4,668.22 | -1,039.44 | 156.15 | 317.47 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 14.73 | 171.46 | 4,764.93 | -1,064.58 | 159.93 | 325.15 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 14.73 | 171.46 | 4,861.65 | -1,089.73 | 163.71 | 332.83 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 14.73 | 171.46 | 4,958.36 | -1,114.87 | 167.49 | 340.51 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 14.73 | 171.46 | 5,055.07 | -1,140.02 | 171.26 | 348.19 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 14.73 | 171.46 | 5,151.79 | -1,165.16 | 175.04 | 355.87 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 14.73 | 171.46 | 5,248.50 | -1,190.30 | 178.82 | 363.55 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 14.73 | 171.46 | 5,345.21 | -1,215.45 | 182.60 | 371.23 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 14.73 | 171.46 | 5,441.93 | -1,240.59 | 186.37 | 378.91 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 14.73 | 171.46 | 5,538.64 | -1,265.74 | 190.15 | 386.59 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 14.73 | 171.46 | 5,635.35 | -1,290.88 | 193.93 | 394.27 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 14.73 | 171.46 | 5,732.07 | -1,316.03 | 197.71 | 401.95 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 14.73 | 171.46 | 5,828.78 | -1,341.17 | 201.48 | 409.63 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 14.73 | 171.46 | 5,925.49 | -1,366.32 | 205.26 | 417.31 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 14.73 | 171.46 | 6,022.21 | -1,391.46 | 209.04 | 424.99 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 14.73 | 171.46 | 6,118.92 | -1,416.61 | 212.82 | 432.67 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 14.73 | 171.46 | 6,215.63 | -1,441.75 | 216.59 | 440.35 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 14.73 | 171.46 | 6,312.35 | -1,466.90 | 220.37 | 448.03 | 0.00 | 0.00 | 0.00 |
| 6,584.28 | 14.73 | 171.46 | 6,393.85 | -1,488.09 | 223.56 | 454.50 | 0.00 | 0.00 | 0.00 |
| Start DLS 10.00 TFO -81.56 | | | | | | | | | |
| 6,600.00 | 15.04 | 165.45 | 6,409.05 | -1,492.04 | 224.36 | 455.92 | 10.00 | 1.97 | -38.18 |
| 6,650.00 | 16.96 | 148.62 | 6,457.14 | -1,504.56 | 229.80 | 463.25 | 10.00 | 3.84 | -33.67 |
| 6,700.00 | 19.95 | 135.90 | 6,504.58 | -1,516.92 | 239.54 | 474.81 | 10.00 | 5.98 | -25.44 |
| 6,750.00 | 23.61 | 126.67 | 6,551.01 | -1,529.03 | 253.51 | 490.52 | 10.00 | 7.31 | -18.46 |
| 6,800.00 | 27.67 | 119.90 | 6,596.09 | -1,540.80 | 271.62 | 510.25 | 10.00 | 8.12 | -13.54 |
| 6,850.00 | 31.98 | 114.78 | 6,639.47 | -1,552.14 | 293.71 | 533.85 | 10.00 | 8.62 | -10.23 |
| 6,900.00 | 36.44 | 110.79 | 6,680.81 | -1,562.97 | 319.64 | 561.15 | 10.00 | 8.94 | -7.99 |
| 6,950.00 | 41.02 | 107.56 | 6,719.81 | -1,573.20 | 349.18 | 591.94 | 10.00 | 9.15 | -6.45 |
| 7,000.00 | 45.67 | 104.89 | 6,756.16 | -1,582.75 | 382.13 | 625.98 | 10.00 | 9.30 | -5.35 |
| 7,050.00 | 50.38 | 102.61 | 6,789.60 | -1,591.55 | 418.23 | 663.01 | 10.00 | 9.41 | -4.56 |
| 7,100.00 | 55.12 | 100.62 | 6,819.86 | -1,599.54 | 457.20 | 702.75 | 10.00 | 9.49 | -3.98 |
| 7,150.00 | 59.89 | 98.85 | 6,846.71 | -1,606.65 | 498.76 | 744.91 | 10.00 | 9.54 | -3.54 |
| 7,200.00 | 64.69 | 97.24 | 6,869.95 | -1,612.83 | 542.58 | 789.15 | 10.00 | 9.59 | -3.21 |
| 7,250.00 | 69.50 | 95.76 | 6,889.41 | -1,618.03 | 588.32 | 835.15 | 10.00 | 9.62 | -2.97 |
| 7,266.57 | 71.09 | 95.29 | 6,895.00 | -1,619.53 | 603.85 | 850.72 | 10.00 | 9.64 | -2.84 |
| Sharon Springs (Confining Zone): | | | | | | | | | |
| 7,300.00 | 74.32 | 94.37 | 6,904.94 | -1,622.21 | 635.65 | 882.55 | 10.00 | 9.65 | -2.76 |
| 7,350.00 | 79.15 | 93.04 | 6,916.41 | -1,625.35 | 684.20 | 930.99 | 10.00 | 9.66 | -2.66 |
| 7,353.19 | 79.46 | 92.95 | 6,917.00 | -1,625.51 | 687.33 | 934.11 | 10.00 | 9.67 | -2.60 |
| Niobrara: | | | | | | | | | |
| 7,400.00 | 83.98 | 91.75 | 6,923.74 | -1,627.41 | 733.60 | 980.10 | 10.00 | 9.67 | -2.57 |
| 7,450.00 | 88.82 | 90.49 | 6,926.88 | -1,628.38 | 783.48 | 1,029.51 | 10.00 | 9.68 | -2.53 |
| 7,462.17 | 90.00 | 90.18 | 6,927.00 | -1,628.46 | 795.64 | 1,041.53 | 10.00 | 9.68 | -2.52 |
| Start 9636.39 hold at 7462.17 MD | | | | | | | | | |
| 7,500.00 | 90.00 | 90.18 | 6,927.00 | -1,628.58 | 833.47 | 1,078.92 | 0.00 | 0.00 | 0.00 |
| 7,600.00 | 90.00 | 90.18 | 6,927.00 | -1,628.89 | 933.47 | 1,177.72 | 0.00 | 0.00 | 0.00 |
| 7,700.00 | 90.00 | 90.18 | 6,927.00 | -1,629.21 | 1,033.47 | 1,276.53 | 0.00 | 0.00 | 0.00 |
| 7,800.00 | 90.00 | 90.18 | 6,927.00 | -1,629.53 | 1,133.47 | 1,375.34 | 0.00 | 0.00 | 0.00 |
| 7,900.00 | 90.00 | 90.18 | 6,927.00 | -1,629.85 | 1,233.47 | 1,474.15 | 0.00 | 0.00 | 0.00 |

Planning Report

| | | | |
|------------------|----------------------------|-------------------------------------|---------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well WALT EAST 16E-20-05N |
| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB 29' @ 5136.00usft |
| Project: | WELD COUNTY | MD Reference: | KB 29' @ 5136.00usft |
| Site: | SEC 17-T7N-R67W | North Reference: | True |
| Well: | WALT EAST 16E-20-05N | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OWB | | |
| Design: | PROPOSAL 1 | | |

| Planned Survey | | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 8,000.00 | 90.00 | 90.18 | 6,927.00 | -1,630.16 | 1,333.47 | 1,572.96 | 0.00 | 0.00 | 0.00 | |
| 8,100.00 | 90.00 | 90.18 | 6,927.00 | -1,630.48 | 1,433.47 | 1,671.76 | 0.00 | 0.00 | 0.00 | |
| 8,200.00 | 90.00 | 90.18 | 6,927.00 | -1,630.80 | 1,533.47 | 1,770.57 | 0.00 | 0.00 | 0.00 | |
| 8,300.00 | 90.00 | 90.18 | 6,927.00 | -1,631.12 | 1,633.47 | 1,869.38 | 0.00 | 0.00 | 0.00 | |
| 8,400.00 | 90.00 | 90.18 | 6,927.00 | -1,631.43 | 1,733.47 | 1,968.19 | 0.00 | 0.00 | 0.00 | |
| 8,500.00 | 90.00 | 90.18 | 6,927.00 | -1,631.75 | 1,833.47 | 2,067.00 | 0.00 | 0.00 | 0.00 | |
| 8,600.00 | 90.00 | 90.18 | 6,927.00 | -1,632.07 | 1,933.47 | 2,165.81 | 0.00 | 0.00 | 0.00 | |
| 8,700.00 | 90.00 | 90.18 | 6,927.00 | -1,632.39 | 2,033.47 | 2,264.61 | 0.00 | 0.00 | 0.00 | |
| 8,800.00 | 90.00 | 90.18 | 6,927.00 | -1,632.70 | 2,133.47 | 2,363.42 | 0.00 | 0.00 | 0.00 | |
| 8,900.00 | 90.00 | 90.18 | 6,927.00 | -1,633.02 | 2,233.47 | 2,462.23 | 0.00 | 0.00 | 0.00 | |
| 9,000.00 | 90.00 | 90.18 | 6,927.00 | -1,633.34 | 2,333.47 | 2,561.04 | 0.00 | 0.00 | 0.00 | |
| 9,100.00 | 90.00 | 90.18 | 6,927.00 | -1,633.65 | 2,433.47 | 2,659.85 | 0.00 | 0.00 | 0.00 | |
| 9,200.00 | 90.00 | 90.18 | 6,927.00 | -1,633.97 | 2,533.47 | 2,758.66 | 0.00 | 0.00 | 0.00 | |
| 9,300.00 | 90.00 | 90.18 | 6,927.00 | -1,634.29 | 2,633.46 | 2,857.46 | 0.00 | 0.00 | 0.00 | |
| 9,400.00 | 90.00 | 90.18 | 6,927.00 | -1,634.61 | 2,733.46 | 2,956.27 | 0.00 | 0.00 | 0.00 | |
| 9,500.00 | 90.00 | 90.18 | 6,927.00 | -1,634.92 | 2,833.46 | 3,055.08 | 0.00 | 0.00 | 0.00 | |
| 9,600.00 | 90.00 | 90.18 | 6,927.00 | -1,635.24 | 2,933.46 | 3,153.89 | 0.00 | 0.00 | 0.00 | |
| 9,700.00 | 90.00 | 90.18 | 6,927.00 | -1,635.56 | 3,033.46 | 3,252.70 | 0.00 | 0.00 | 0.00 | |
| 9,800.00 | 90.00 | 90.18 | 6,927.00 | -1,635.88 | 3,133.46 | 3,351.50 | 0.00 | 0.00 | 0.00 | |
| 9,900.00 | 90.00 | 90.18 | 6,927.00 | -1,636.19 | 3,233.46 | 3,450.31 | 0.00 | 0.00 | 0.00 | |
| 10,000.00 | 90.00 | 90.18 | 6,927.00 | -1,636.51 | 3,333.46 | 3,549.12 | 0.00 | 0.00 | 0.00 | |
| 10,100.00 | 90.00 | 90.18 | 6,927.00 | -1,636.83 | 3,433.46 | 3,647.93 | 0.00 | 0.00 | 0.00 | |
| 10,200.00 | 90.00 | 90.18 | 6,927.00 | -1,637.15 | 3,533.46 | 3,746.74 | 0.00 | 0.00 | 0.00 | |
| 10,300.00 | 90.00 | 90.18 | 6,927.00 | -1,637.46 | 3,633.46 | 3,845.55 | 0.00 | 0.00 | 0.00 | |
| 10,400.00 | 90.00 | 90.18 | 6,927.00 | -1,637.78 | 3,733.46 | 3,944.35 | 0.00 | 0.00 | 0.00 | |
| 10,500.00 | 90.00 | 90.18 | 6,927.00 | -1,638.10 | 3,833.46 | 4,043.16 | 0.00 | 0.00 | 0.00 | |
| 10,600.00 | 90.00 | 90.18 | 6,927.00 | -1,638.42 | 3,933.46 | 4,141.97 | 0.00 | 0.00 | 0.00 | |
| 10,700.00 | 90.00 | 90.18 | 6,927.00 | -1,638.73 | 4,033.46 | 4,240.78 | 0.00 | 0.00 | 0.00 | |
| 10,800.00 | 90.00 | 90.18 | 6,927.00 | -1,639.05 | 4,133.46 | 4,339.59 | 0.00 | 0.00 | 0.00 | |
| 10,900.00 | 90.00 | 90.18 | 6,927.00 | -1,639.37 | 4,233.46 | 4,438.40 | 0.00 | 0.00 | 0.00 | |
| 11,000.00 | 90.00 | 90.18 | 6,927.00 | -1,639.69 | 4,333.46 | 4,537.20 | 0.00 | 0.00 | 0.00 | |
| 11,100.00 | 90.00 | 90.18 | 6,927.00 | -1,640.00 | 4,433.46 | 4,636.01 | 0.00 | 0.00 | 0.00 | |
| 11,200.00 | 90.00 | 90.18 | 6,927.00 | -1,640.32 | 4,533.46 | 4,734.82 | 0.00 | 0.00 | 0.00 | |
| 11,300.00 | 90.00 | 90.18 | 6,927.00 | -1,640.64 | 4,633.45 | 4,833.63 | 0.00 | 0.00 | 0.00 | |
| 11,400.00 | 90.00 | 90.18 | 6,927.00 | -1,640.96 | 4,733.45 | 4,932.44 | 0.00 | 0.00 | 0.00 | |
| 11,500.00 | 90.00 | 90.18 | 6,927.00 | -1,641.27 | 4,833.45 | 5,031.25 | 0.00 | 0.00 | 0.00 | |
| 11,600.00 | 90.00 | 90.18 | 6,927.00 | -1,641.59 | 4,933.45 | 5,130.05 | 0.00 | 0.00 | 0.00 | |
| 11,700.00 | 90.00 | 90.18 | 6,927.00 | -1,641.91 | 5,033.45 | 5,228.86 | 0.00 | 0.00 | 0.00 | |
| 11,800.00 | 90.00 | 90.18 | 6,927.00 | -1,642.23 | 5,133.45 | 5,327.67 | 0.00 | 0.00 | 0.00 | |
| 11,900.00 | 90.00 | 90.18 | 6,927.00 | -1,642.54 | 5,233.45 | 5,426.48 | 0.00 | 0.00 | 0.00 | |
| 12,000.00 | 90.00 | 90.18 | 6,927.00 | -1,642.86 | 5,333.45 | 5,525.29 | 0.00 | 0.00 | 0.00 | |
| 12,100.00 | 90.00 | 90.18 | 6,927.00 | -1,643.18 | 5,433.45 | 5,624.09 | 0.00 | 0.00 | 0.00 | |
| 12,200.00 | 90.00 | 90.18 | 6,927.00 | -1,643.50 | 5,533.45 | 5,722.90 | 0.00 | 0.00 | 0.00 | |
| 12,300.00 | 90.00 | 90.18 | 6,927.00 | -1,643.81 | 5,633.45 | 5,821.71 | 0.00 | 0.00 | 0.00 | |
| 12,400.00 | 90.00 | 90.18 | 6,927.00 | -1,644.13 | 5,733.45 | 5,920.52 | 0.00 | 0.00 | 0.00 | |
| 12,500.00 | 90.00 | 90.18 | 6,927.00 | -1,644.45 | 5,833.45 | 6,019.33 | 0.00 | 0.00 | 0.00 | |
| 12,600.00 | 90.00 | 90.18 | 6,927.00 | -1,644.77 | 5,933.45 | 6,118.14 | 0.00 | 0.00 | 0.00 | |
| 12,700.00 | 90.00 | 90.18 | 6,927.00 | -1,645.08 | 6,033.45 | 6,216.94 | 0.00 | 0.00 | 0.00 | |
| 12,800.00 | 90.00 | 90.18 | 6,927.00 | -1,645.40 | 6,133.45 | 6,315.75 | 0.00 | 0.00 | 0.00 | |
| 12,900.00 | 90.00 | 90.18 | 6,927.00 | -1,645.72 | 6,233.45 | 6,414.56 | 0.00 | 0.00 | 0.00 | |
| 13,000.00 | 90.00 | 90.18 | 6,927.00 | -1,646.04 | 6,333.45 | 6,513.37 | 0.00 | 0.00 | 0.00 | |
| 13,100.00 | 90.00 | 90.18 | 6,927.00 | -1,646.35 | 6,433.45 | 6,612.18 | 0.00 | 0.00 | 0.00 | |
| 13,200.00 | 90.00 | 90.18 | 6,927.00 | -1,646.67 | 6,533.45 | 6,710.99 | 0.00 | 0.00 | 0.00 | |
| 13,300.00 | 90.00 | 90.18 | 6,927.00 | -1,646.99 | 6,633.44 | 6,809.79 | 0.00 | 0.00 | 0.00 | |

Planning Report

| | | | |
|------------------|----------------------------|-------------------------------------|---------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well WALT EAST 16E-20-05N |
| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB 29' @ 5136.00usft |
| Project: | WELD COUNTY | MD Reference: | KB 29' @ 5136.00usft |
| Site: | SEC 17-T7N-R67W | North Reference: | True |
| Well: | WALT EAST 16E-20-05N | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OWB | | |
| Design: | PROPOSAL 1 | | |

| Planned Survey | | | | | | | | | | |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-----------------------------|----------------------------|---------------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 13,400.00 | 90.00 | 90.18 | 6,927.00 | -1,647.31 | 6,733.44 | 6,908.60 | 0.00 | 0.00 | 0.00 | |
| 13,500.00 | 90.00 | 90.18 | 6,927.00 | -1,647.62 | 6,833.44 | 7,007.41 | 0.00 | 0.00 | 0.00 | |
| 13,600.00 | 90.00 | 90.18 | 6,927.00 | -1,647.94 | 6,933.44 | 7,106.22 | 0.00 | 0.00 | 0.00 | |
| 13,700.00 | 90.00 | 90.18 | 6,927.00 | -1,648.26 | 7,033.44 | 7,205.03 | 0.00 | 0.00 | 0.00 | |
| 13,800.00 | 90.00 | 90.18 | 6,927.00 | -1,648.58 | 7,133.44 | 7,303.84 | 0.00 | 0.00 | 0.00 | |
| 13,900.00 | 90.00 | 90.18 | 6,927.00 | -1,648.89 | 7,233.44 | 7,402.64 | 0.00 | 0.00 | 0.00 | |
| 14,000.00 | 90.00 | 90.18 | 6,927.00 | -1,649.21 | 7,333.44 | 7,501.45 | 0.00 | 0.00 | 0.00 | |
| 14,100.00 | 90.00 | 90.18 | 6,927.00 | -1,649.53 | 7,433.44 | 7,600.26 | 0.00 | 0.00 | 0.00 | |
| 14,200.00 | 90.00 | 90.18 | 6,927.00 | -1,649.85 | 7,533.44 | 7,699.07 | 0.00 | 0.00 | 0.00 | |
| 14,300.00 | 90.00 | 90.18 | 6,927.00 | -1,650.16 | 7,633.44 | 7,797.88 | 0.00 | 0.00 | 0.00 | |
| 14,400.00 | 90.00 | 90.18 | 6,927.00 | -1,650.48 | 7,733.44 | 7,896.68 | 0.00 | 0.00 | 0.00 | |
| 14,500.00 | 90.00 | 90.18 | 6,927.00 | -1,650.80 | 7,833.44 | 7,995.49 | 0.00 | 0.00 | 0.00 | |
| 14,600.00 | 90.00 | 90.18 | 6,927.00 | -1,651.12 | 7,933.44 | 8,094.30 | 0.00 | 0.00 | 0.00 | |
| 14,700.00 | 90.00 | 90.18 | 6,927.00 | -1,651.43 | 8,033.44 | 8,193.11 | 0.00 | 0.00 | 0.00 | |
| 14,800.00 | 90.00 | 90.18 | 6,927.00 | -1,651.75 | 8,133.44 | 8,291.92 | 0.00 | 0.00 | 0.00 | |
| 14,900.00 | 90.00 | 90.18 | 6,927.00 | -1,652.07 | 8,233.44 | 8,390.73 | 0.00 | 0.00 | 0.00 | |
| 15,000.00 | 90.00 | 90.18 | 6,927.00 | -1,652.39 | 8,333.44 | 8,489.53 | 0.00 | 0.00 | 0.00 | |
| 15,100.00 | 90.00 | 90.18 | 6,927.00 | -1,652.70 | 8,433.44 | 8,588.34 | 0.00 | 0.00 | 0.00 | |
| 15,200.00 | 90.00 | 90.18 | 6,927.00 | -1,653.02 | 8,533.44 | 8,687.15 | 0.00 | 0.00 | 0.00 | |
| 15,300.00 | 90.00 | 90.18 | 6,927.00 | -1,653.34 | 8,633.43 | 8,785.96 | 0.00 | 0.00 | 0.00 | |
| 15,400.00 | 90.00 | 90.18 | 6,927.00 | -1,653.66 | 8,733.43 | 8,884.77 | 0.00 | 0.00 | 0.00 | |
| 15,500.00 | 90.00 | 90.18 | 6,927.00 | -1,653.97 | 8,833.43 | 8,983.58 | 0.00 | 0.00 | 0.00 | |
| 15,600.00 | 90.00 | 90.18 | 6,927.00 | -1,654.29 | 8,933.43 | 9,082.38 | 0.00 | 0.00 | 0.00 | |
| 15,700.00 | 90.00 | 90.18 | 6,927.00 | -1,654.61 | 9,033.43 | 9,181.19 | 0.00 | 0.00 | 0.00 | |
| 15,800.00 | 90.00 | 90.18 | 6,927.00 | -1,654.93 | 9,133.43 | 9,280.00 | 0.00 | 0.00 | 0.00 | |
| 15,900.00 | 90.00 | 90.18 | 6,927.00 | -1,655.24 | 9,233.43 | 9,378.81 | 0.00 | 0.00 | 0.00 | |
| 16,000.00 | 90.00 | 90.18 | 6,927.00 | -1,655.56 | 9,333.43 | 9,477.62 | 0.00 | 0.00 | 0.00 | |
| 16,100.00 | 90.00 | 90.18 | 6,927.00 | -1,655.88 | 9,433.43 | 9,576.43 | 0.00 | 0.00 | 0.00 | |
| 16,200.00 | 90.00 | 90.18 | 6,927.00 | -1,656.19 | 9,533.43 | 9,675.23 | 0.00 | 0.00 | 0.00 | |
| 16,300.00 | 90.00 | 90.18 | 6,927.00 | -1,656.51 | 9,633.43 | 9,774.04 | 0.00 | 0.00 | 0.00 | |
| 16,400.00 | 90.00 | 90.18 | 6,927.00 | -1,656.83 | 9,733.43 | 9,872.85 | 0.00 | 0.00 | 0.00 | |
| 16,500.00 | 90.00 | 90.18 | 6,927.00 | -1,657.15 | 9,833.43 | 9,971.66 | 0.00 | 0.00 | 0.00 | |
| 16,600.00 | 90.00 | 90.18 | 6,927.00 | -1,657.46 | 9,933.43 | 10,070.47 | 0.00 | 0.00 | 0.00 | |
| 16,700.00 | 90.00 | 90.18 | 6,927.00 | -1,657.78 | 10,033.43 | 10,169.27 | 0.00 | 0.00 | 0.00 | |
| 16,800.00 | 90.00 | 90.18 | 6,927.00 | -1,658.10 | 10,133.43 | 10,268.08 | 0.00 | 0.00 | 0.00 | |
| 16,900.00 | 90.00 | 90.18 | 6,927.00 | -1,658.42 | 10,233.43 | 10,366.89 | 0.00 | 0.00 | 0.00 | |
| 17,000.00 | 90.00 | 90.18 | 6,927.00 | -1,658.73 | 10,333.43 | 10,465.70 | 0.00 | 0.00 | 0.00 | |
| 17,098.56 | 90.00 | 90.18 | 6,927.00 | -1,659.05 | 10,431.99 | 10,563.09 | 0.00 | 0.00 | 0.00 | |
| TD at 17098.56 | | | | | | | | | | |

| Design Targets | | | | | | | | | |
|---|---------------|--------------|------------|--------------|--------------|-----------------|----------------|--------------------|--------------|
| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude Longitude | |
| WALT EAST 16E-20-05† - hit/miss target - Shape - Point | 0.00 | 0.00 | 6,927.00 | -1,659.05 | 10,431.99 | 1,451,412.51 | 3,174,600.10 | 40.570828°N | 104.871504°W |
| WALT EAST 16E-20-05† - plan hits target center - Point | 0.00 | 0.00 | 6,927.00 | -1,628.46 | 795.64 | 1,451,378.89 | 3,164,963.76 | 40.570918°N | 104.906191°W |

Planning Report

| | | | |
|------------------|----------------------------|-------------------------------------|---------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well WALT EAST 16E-20-05N |
| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB 29' @ 5136.00usft |
| Project: | WELD COUNTY | MD Reference: | KB 29' @ 5136.00usft |
| Site: | SEC 17-T7N-R67W | North Reference: | True |
| Well: | WALT EAST 16E-20-05N | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OWB | | |
| Design: | PROPOSAL 1 | | |

| Formations | | | | | | |
|-----------------------|-----------------------|----------------------------------|-----------|---------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name | Lithology | Dip (°) | Dip Direction (°) | |
| 794.45 | 792.00 | Fox Hills Base: | | | | |
| 3,542.45 | 3,452.00 | Parkman: | | | | |
| 4,080.12 | 3,972.00 | Sussex: | | | | |
| 4,679.83 | 4,552.00 | Shannon: | | | | |
| 7,266.57 | 6,895.00 | Sharon Springs (Confining Zone): | | | | |
| 7,353.19 | 6,917.00 | Niobrara: | | | | |

| Plan Annotations | | | | | |
|-----------------------|-----------------------|-------------------|--------------|----------------------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment | |
| | | +N/-S (usft) | +E/-W (usft) | | |
| 300.00 | 300.00 | 0.00 | 0.00 | Start Build 2.00 | |
| 1,036.52 | 1,028.43 | -93.11 | 13.99 | Start 5547.76 hold at 1036.52 MD | |
| 6,584.28 | 6,393.85 | -1,488.09 | 223.56 | Start DLS 10.00 TFO -81.56 | |
| 7,462.17 | 6,927.00 | -1,628.46 | 795.64 | Start 9636.39 hold at 7462.17 MD | |
| 17,098.56 | 6,927.00 | -1,659.05 | 10,431.99 | TD at 17098.56 | |